

Abstract

Contention communications often requires a station to wait an inordinate amount of time before the station is able to transmit its data successfully. In many applications, an extended delay is not acceptable. Contention-free communications in a contention period allows a hybrid coordinator (HC) to schedule contention-free access to a communications medium so that extended delays may be eliminated, and to coordinate contention access to the medium so that better throughput and delay performance is achieved. A method for creating contention-free communications within a contention communications period is presented, along with adaptive algorithms for contention access during the same contention period.